

## PERFORMANCE

### Processor

#### Processor Family

8th / 10th Generation Intel® Core™ i5 / i7 Processor

#### Processor<sup>[1]</sup>

Processor Name	Cores	Threads	Base Frequency	Max Frequency	Cache	Memory Support	Processor Graphics
Core i5-8265U	4	8	1.6GHz	3.9GHz	6MB	DDR4-2400	Intel UHD Graphics
Core i5-8365U	4	8	1.6GHz	4.1GHz	6MB	DDR4-2400	Intel UHD Graphics
Core i5-10210U	4	8	1.6GHz	4.2GHz	6MB	DDR4-2666	Intel UHD Graphics
Core i7-8565U	4	8	1.8GHz	4.6GHz	8MB	DDR4-2400	Intel UHD Graphics
Core i7-8665U	4	8	1.9GHz	4.8GHz	8MB	DDR4-2400	Intel UHD Graphics
Core i7-10510U	4	8	1.8GHz	4.9GHz	8MB	DDR4-2666	Intel UHD Graphics
Core i7-10710U	6	12	1.1GHz	4.7GHz	12MB	DDR4-2666	Intel UHD Graphics

#### Notes:

- 1. 10th Generation Intel Core Processors are NOT available in EMEA.

### Operating System

#### Operating System

- Windows® 10 Pro 64
- Windows 10 Pro in S mode
- Windows 10 Home 64
- Linux
- Ubuntu Linux
- No operating system

### Graphics

#### Graphics

Graphics	Type	Memory	Key Features
Intel UHD Graphics	Integrated	Shared	DirectX® 12
NVIDIA® GeForce MX250	Discrete	2GB GDDR5	DirectX 12

### Monitor Support

#### Monitor Support

Supports up to 3 independent displays via native display and 2 external monitors; supports external monitors via HDMI® (up to 4096x2160@24Hz), Thunderbolt™ (up to 4096x2304@60Hz)

### Chipset

#### Chipset

Intel SoC (System on Chip) platform

### Memory

#### Max Memory<sup>[1]</sup>

- Up to 40GB (8GB soldered + 32GB SO-DIMM) DDR4-2400
- Up to 48GB (16GB soldered + 32GB SO-DIMM) DDR4-2400

#### Memory Slots

One memory soldered to systemboard, one DDR4 SO-DIMM slot, dual-channel capable

#### Memory Type<sup>[2]</sup>

DDR4-2400

#### Notes:

- 1. The max memory is based on the test results with current Lenovo® memory offerings. The system may support more memory as the

technology develops.

2. Installed memory is actually 2666MHz but run at 2400MHz due to processor limitation.

## Storage

### Storage Support<sup>[1]</sup>

One drive, up to 256GB M.2 2242 SSD or 1TB M.2 2280 SSD, optional Intel Optane™ Memory integrated with SSD, M.2

### Storage Type<sup>[2]</sup>

Disk Type	Interface	RPM	Security
M.2 2242 SSD	PCIe® NVMe®, PCIe 3.0 x2	-	-
M.2 2280 SSD	PCIe NVMe, PCIe 3.0 x4	-	Opal2
M.2 2280 SSD	SATA 6Gb/s	-	Opal2
Intel Optane Memory with Solid State Storage, M.2 2280	PCIe NVMe, PCIe 3.0 x4	-	-

Notes:

1. The storage capacity supported is based on the test results with current Lenovo storage offerings. The system may support larger storage as the technology develops.
2. M.2 2280 SATA SSD is NOT available in EMEA.

## Removable Storage

### Optical

None

### Card Reader

MicroSD card reader

## Multi-Media

### Audio Chip

High Definition (HD) Audio, Realtek® ALC3287 codec

### Speakers

Stereo speakers, 2W x2, Dolby® Audio™ Premium

### Microphone<sup>[1]</sup>

- Dual array microphone, far-field
- No microphone

### Camera

- HD 720p, with ThinkShutter, fixed focus
- IR & HD 720p hybrid, with ThinkShutter, fixed focus
- No camera

Notes:

1. No microphone is for special bid only.

## Battery

### Battery

Integrated Li-Polymer 50Wh battery, supports Rapid Charge (charge up to 80% in 1hr) with 65W AC adapter

### Max Battery Life<sup>[1]</sup>

MobileMark® 2014: 16.11 hr

JEITA 2.0: 17.8 hr

Notes:

1. All battery life claims are approximate maximum and based on results using the MobileMark 2014, MobileMark 2018, JEITA 2.0, continuous 1080p video playback (with 150nits brightness and default volume level) or Google Power Load Test (PLT) battery-life benchmark tests. Actual battery life will vary and depends on many factors such as product configuration and usage, software use, wireless functionality, power management settings, and screen brightness. The maximum capacity of the battery will decrease with time and use.

## Power Adapter

### Power Adapter<sup>[1]</sup>

- 45W USB-C® (2-pin) AC adapter
- 45W USB-C (3-pin) AC adapter
- 65W USB-C slim (3-pin) AC adapter
- 65W USB-C slim (2-pin) AC adapter
- 65W USB-C (2-pin) AC adapter
- 65W USB-C (3-pin) AC adapter

## Notes:

1. AC adapter offerings depend on the country.

## DESIGN

## Display

Display<sup>[1]</sup>

Size	Resolution	Touch	Type	Brightness	Surface	Aspect Ratio	Contrast Ratio	Color Gamut	Viewing Angle	Key Features
14.0"	HD (1366x768)	None	TN	220 nits	Anti-glare	16:9	400:1	45% NTSC	90°	-
14.0"	FHD (1920x1080)	None	IPS	250 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	800:1	72% NTSC	170°	Low power
14.0"	FHD (1920x1080)	Multi-touch	IPS	300 nits	Anti-glare	16:9	700:1	45% NTSC	170°	-
14.0"	FHD (1920x1080)	None	IPS	400 nits	Anti-glare	16:9	1000:1	72% NTSC	170°	ThinkPad® Privacy Guard
14.0"	WQHD (2560x1440)	None	IPS	500 nits	Glossy	16:9	1500:1	100% Adobe® RGB	170°	Dolby Vision™, HDR

## Touchscreen

- On-cell touch, supports 10-point touch
- Non-touch

## Notes:

1. California Electronic Waste Recycling Fee

In California, per state law, Lenovo charges an electronic waste recycling fee on this covered device at the time of sale of the product. For more information, go to <https://www.calrecycle.ca.gov/Electronics/Consumer>

## Input Device

## Keyboard

6-row, spill-resistant, multimedia Fn keys

## Keyboard Backlight

- LED backlight
- Non-backlight

## UltraNav™

TrackPoint® pointing device and Mylar® surface multi-touch touchpad

Mechanical<sup>[1]</sup>

## Dimensions (WxDxH)

329 x 227 x 17.9 mm (12.95 x 8.94 x 0.70 inches)

## Weight

Models	Weight
FHD Low Power / WQHD models	1.46 kg (3.22 lbs)
FHD Privacy Guard models	1.61 kg (3.56 lbs)

FHD touch / FHD non-touch models	1.55 kg (3.41 lbs)
HD models	1.53 kg (3.37 lbs)

**Case Color**

Black

**Case Material**

PPS / 50% GF (top), PC + ABS / Talc15 + magnesium alloy (keyboard cover), PA / 50% GF (bottom)

Notes:

1. The system dimensions and weight vary depending on configurations.

## CONNECTIVITY

**Network****Ethernet**

- Gigabit Ethernet, Intel Ethernet Connection I219-LM (vPro models)
- Gigabit Ethernet, Intel Ethernet Connection I219-V (non-vPro models)

**WLAN + Bluetooth®<sup>[1][2]</sup>**

- Intel Wireless-AC 9560, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth 5.1
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1

**WWAN<sup>[3]</sup>**

- Wireless WAN upgradable to 4G
- Fibocom L850-GL, 4G LTE CAT9, M.2 card
- Integrated Mobile Broadband 4G LTE, Fibocom L830-EB, M.2 card
- Integrated Mobile Broadband 4G LTE-A, Fibocom L860-GL, MIMO 4x4, M.2 card
- No support

**SIM Card**

No SIM card inbox

**NFC**

- Near Field Communication
- No support

Notes:

1. Bluetooth 5.2 is hardware ready but may run at a lower version due to OS limitation
2. Intel Wi-Fi 6 is for 10th gen processors only.  
Wi-Fi 6 full features might be limited by country-level restrictions.
3. In EMEA, WWAN upgradable is for special bid only.  
Fibocom L830-EB is only available in EMEA.  
For non-WWAN model, it means the model is NOT WWAN upgradable.

**Ports<sup>[1]</sup>****Standard Ports**

- 1x USB 3.1 Gen 1
- 1x USB 3.1 Gen 1 (Always On)
- 1x USB-C 3.1 Gen 2 / Thunderbolt 3 (support data transfer, Power Delivery and DisplayPort™ 1.2)
- 1x USB-C 3.1 Gen 1 (support data transfer, Power Delivery and DisplayPort 1.2)
- 1x HDMI 1.4b
- 1x microSD card reader
- 1x Ethernet (RJ-45)
- 1x Headphone / microphone combo jack (3.5mm)
- 1x Side docking connector

**Optional Ports**

- 1x Smart card reader
- 1x Nano-SIM card slot (WWAN support models)

Notes:

1. The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.

USB 2.0: 480 Mbit/s;  
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;  
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;  
USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;  
Thunderbolt 3/4: 40 Gbit/s

## Monitor Cable

### Monitor Cable

- Lenovo HDMI to VGA Monitor Adapter
- Lenovo USB-C to VGA Adapter
- Lenovo USB-C to HDMI Adapter
- No monitor cable

## SECURITY & PRIVACY

### Security

#### Security Chip

Discrete TPM 2.0, TCG certified

#### Physical Locks

Kensington® Security Slot™

#### Smart Card Reader

- Smart card reader
- No smart card reader

#### Fingerprint Reader

- Touch style fingerprint reader on palm rest, match-on-chip
- No fingerprint reader

#### BIOS Security

- Power-on password
- Supervisor password
- Hard disk password
- Self-healing BIOS

#### Other Security

- (Optional) ThinkShutter camera cover
- (Optional) IR camera for Windows Hello
- (Optional) Privacy Guard with Privacy Alert

## MANAGEABILITY

### System Management

#### System Management

- Intel vPro
- None

## SERVICE

### Warranty

#### Base Warranty<sup>[1]</sup>

- 1-year depot service
- 1-year courier with 2-year system board service (Korea only)
- 1-year limited onsite service
- 3-year (1-yr battery) depot service
- 3-year (1-yr battery) limited onsite service
- No base warranty

Notes:

1. More information of warranty policy, please access <https://pcsupport.lenovo.com/warranty>

## CERTIFICATIONS

### Green Certifications

#### Green Certifications

- EPEAT™ Gold
- ENERGY STAR® 8.0
- TCO Certified
- RoHS compliant

### Other Certifications

#### Mil-Spec Test

MIL-STD-810G military test passed

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